POLYCOM®

Conference Composer
User Guide

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CCUG-0100-01

CONFERENCE COMPOSER™ SOFTWARE

INTRODUCTION

Conference Composer is the design and configuration software that is supplied with the Vortex®. Its purpose is to make it easy and intuitive to configure Polycom's Vortex products, share configuration files, create presets, macros, and logic assignments.

Conference Composer operates under Windows™ 98, ME, NT, and 2000.

INSTALLATION

Insert the Conference Composer disk into your CD-ROM drive and run the `Setup` program. If you have a previously installed version of Conference Composer on your computer, it is highly recommended that you uninstall that version (use `Add/ Remove Program` from the CONTROL PANEL window) before installing the latest version.

After running the `Setup` program, simply follow the instructions for installing Conference Composer.

USING CONFERENCE COMPOSER WITH A VORTEX AND EF200 PHONE ADD

When using the Conference Composer software with the Vortex and the EF200, plug the RS-232 into the Vortex. If you plug into the EF200, you may not be able to get Level information because the EF200 will not know how to interpret the data from the software that will display metering information.

FEATURES OF THE CONFERENCE COMPOSER WINDOW

Figure 1. Feauters of Conference Composer window

1. EXPLORER MENU. The Explorer-type menu structure allows you to easily navigate and browse through your device list. Clicking on an item in the tree will display the parameter page to the right of the explorer menu.
2. STATUS METER. This meter and status light shows the communication status between your PC and a Vortex or EF device (EF200 or EF1210). The WAITING light turns yellow when it is communicating via RS-232 with a Vortex or EF device and the meter indicates how full the command buffer is with commands being sent to the device.
3. DSP LOAD. Indicates the current percentage of used available variable DSP resources.
4. MENUS.
   - FILE. The File menu allows you to create a new Project, Device Chain, or Device; manages file functions of a Project such as Opening, Saving, or Closing; and handles printing and Preferences.
   - PROJECT. The Project menu contains 3 options: AUTOSCAN, SAMPLE, or ONLINE. AUTOSCAN finds all Vortex or EF devices connected to the PC and scans in their settings. SAMPLE loads a sample project into Conference Composer. ONLINE allows you to either download settings from a Vortex or EF device or upload settings to a Vortex or EF device.

- USER MODE. User mode selects between BASIC and ADVANCED. Basic mode limits user options that can be adjusted. Advanced mode allows control of all parameters available on Conference Composer.
- HELP. The Help menu contains the ABOUT option that shows the version number of the software.

OPERATING CONFERENCE COMPOSER

Conference Composer may either be operated online or off-line (not connected to a Vortex or EF device) depending on how you would like to use it. If you work off-line it is easy to save the settings to a file, share the files with others, and then upload the settings into an EF device when you go online. The online or off-line operation of Conference Composer is the same, although if you are operating off-line you will need to add devices to the project before you can start working with the devices.

Conference Composer organizes your projects into a hierarchy of PROJECT, DEVICE CHAIN, and DEVICE. Starting from the bottom of the list, a DEVICE is simply that – some piece of equipment that will be used in the installation. A DEVICE CHAIN is a collection of devices that are linked together through the ASPI Bus or EF Bus (that's where the name device *chain* comes from). Typically these represent all the devices that are tied to a particular serial port on your computer/controller. The PROJECT represents a collection of DEVICE CHAINS. You can think of the PROJECTS as directories, the DEVICE CHAINS as files and the DEVICES as items in the files.

There are many different buttons and knobs that allow the user to change settings on the device. Conference Composer's convention is that a feature associated with a button is enabled when the button's LED is lit. To use a knob, click on the knob and while holding down the mouse button, raise or lower the cursor to increase or decrease the knob value..

Figure 2. To increase the level, click on the knob and move the cursor UP. To decrease the level, click on the knob and move the cursor DOWN.

ONLINE: CONNECTED TO AN EF DEVICE

To operate online, the EF Device should be connected to an RS-232 port of your host computer. The first step is to have Conference Composer scan your EF Device -- this ensures the settings you see on the PC screen are exactly the settings in the device. To do this, select the AUTOSCAN option from the PROJECT menu as shown in Figure 3. This ensures the settings you see on the PC screen are exactly the settings in the device.
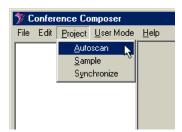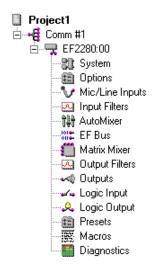
Figure 3. Select AUTOSCAN to have Conference Composer automatically find online devices.

If you have any devices currently using the serial port on your PC, such as a PalmPilot's HotSync, please close those programs to free the COM port before running AUTOSCAN.

AUTOSCAN will automatically find all EF devices (EF2280, EF1210, EF200) attached to the RS-232 port and then automatically download all the settings into Conference Composer. Once the settings have been downloaded to the PC, any changes you make to the device through Conference Composer will be sent automatically to the device, updating its configuration in real-time.

Once Conference Composer has finished downloading the settings from the connected devices, you will see the Navigation area look like Figure 4. The amount of time it takes to sync with the Vortex depends on the number of presets that have valid data. More presets means more data must be sent to the PC.

Figure 4. Project generated when connected to a Vortex.

OFF-LINE: OPERATING WITHOUT AN EF DEVICE

To operate without any devices connected to the computer you can select NEW->DEVICE->EF2280 to create a sample Vortex system to configure. This will automatically create a Project. Once you have a Vortex installed, your navigation tab should

look like Figure 4 (the red X's indicate that you are offline), and you are ready to proceed to the next section.

Figure 5. Operating Conference Composer Offline.

DEVICE PARAMETERS

Each device in Conference Composer is represented by a list of sub-entries for that device. For the Vortex, those fields are SYSTEM, MIC/LINE INPUTS, etc. as shown in Figure 4. By clicking on the Device (`EF2280:00` in Figure 4) you bring up the SYSTEM page as shown in Figure 6. Notice that each SYSTEM page has tabs corresponding to the list of sub-entries in Figure 4. Clicking on either a tab or the field name will bring you to a page with specific controls for that set of functions.

SYSTEM

Figure 6. Vortex System tab shows the block diagram of the device.
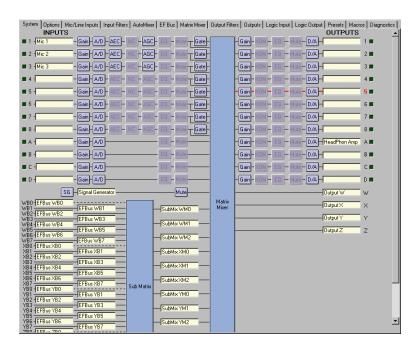
The SYSTEM Page presents you with a block diagram of the Vortex. It allows you to quickly enter text labels for inputs and outputs (this can also be done on all the other pages too), and see the signal flow from inputs to outputs. Holding the cursor over a particular block in the block diagram will show signal flow information from inputs to outputs or outputs to inputs depending on where you hold the mouse. By holding the cursor over any output block, you can see the all the inputs that map to the particular output. You may enable/disable specific features by left clicking on the blocks in the SYSTEM Page. If a block is grayed out, it is turned off.

When connected to a device, the Signal Activity LEDs mapped to the inputs and outputs of the SYSTEM Page (See Figure 7) show the signal activity. This indicator is independent of the gating indicators -- it simply indicates when the input or output has signal level above the Activity Threshold. The Activity Threshold for what constitutes activity is set on the OPTIONS Page -- it is in the MISCELLANEOUS section. If you set this level too high, the threshold may be too high and the signal activity LED will

be difficult to light. If you set the signal activity level too low, the ambient room noise may light the signal activity LED too easily.
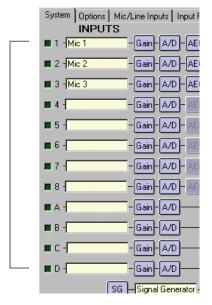

Figure 7. Signal Activity LED of Inputs and Outputs.

The ability to follow signal flow and the Signal Activity LED can provide useful tools to ensure that the proper input to output mappings have been setup.
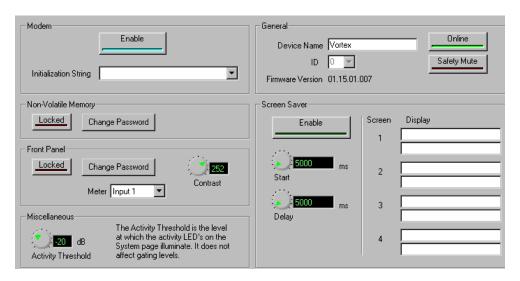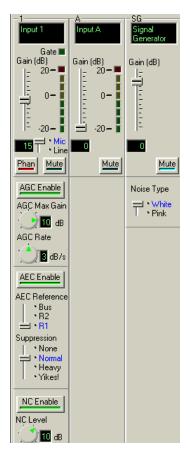
OPTIONS

Figure 8. Options Tab.

The OPTIONS tab allows the user to set the following parameters:

• MODEM INITIALIZATION STRING. The modem initialization string, if enabled,

will send the desired string to the modem (or any device connected to the RS-232 port) each time the Vortex is reset (either through power-up or a software reset). This allows the Vortex to put the modem into an Auto Answer Mode, and set the baud-rate to 9600 bps. The default string is set to: `ATE0F1&B1S0=2`.

- NON-VOLATILE MEMORY LOCK AND PASSWORD. Locking the Non-Volatile memory will prevent users from overwriting presets that have been saved and will also prevent the end user from changing the power up default preset.
- FRONT PANEL LOCK AND PASSWORD. Locking the Front Panel will prevent users from changing settings of the Vortex from the front panel LCD menu. Users will be able to see what the settings in the device are, but will not be able to change the device settings.
- METER DISPLAY ON THE FRONT PANEL. This parameter allows you to select which input, output, or reference is displayed on the front panel meter.
- DEVICE NAME.
- DEVICE ID (when working off-line). The Vortex Device ID can be changed from the OPTIONS page only if the device is off-line. To change the Device ID of an online Vortex, you should change the Device ID from the front panel LCD menu and then AUTOSCAN again.
- SCREEN SAVER text and options. The Screen Saver allows the designer to create 4 sets of messages that can be displayed on the Front Panel LCD on the Vortex. START TIME is how long after the last front panel button has been pressed before the messages begin displaying. DELAY TIME controls how much time elapses before the next message is shown.

MIC/LINE INPUTS

Figure 9. Vortex MIC/LINE INPUTS tab showing Mic/Line Input 1, Line Input A, and the Signal Generator.

The MIC/LINE INPUTS page contains all the controls required to configure the 12 inputs (8 mic/line inputs and the 4 line level inputs). Figure 9 shows a Mic/Line Input channel, a Line Input channel, and the Signal Generator – note that you can enable/disable an input from view with the numbered buttons on the top of the page. Once Input 1 is configured, the user may copy those settings to the other mics by clicking the COPY SETTINGS 1–8 button. The same capability exists to copy the settings from Input A to the remaining line level inputs.

The fields for Inputs 1-8 are as follows:

- TEXT BOX. This stores up to 16 character for the input label.
- GATE LED. This LED is active if the LEVELS button is enabled and the particular input gates on.
- METER PER INPUT. This shows the signal level if it is between -20dBu and +20dBu.
- GAIN SLIDER AND TEXT BOX. These allow the user to set the input gain in dB on the channel. The value adds gain in the analog domain using digitally controlled trimpots. For Inputs 1-8, the gain slider can provide up to 30dB of gain. For Inputs A-D, the gain slider can provide up to 20dB of gain.
- MIC/LINE SWITCH. This applies mic or line level gain to the Input. In Mic mode,

33dB of gain is added to the signal.

- PHANTOM POWER. 24 V phantom power can be enabled or disabled (it is enabled in Figure 9).
- MUTE. This button is used to mute or unmute the input signal (MUTE is disabled in Figure 9).
- AGC ENABLE. This will enable/disable the automatic gain control (AGC).
- AGC MAX GAIN. This can be used to limit the total amount of gain the AGC can apply to the signal.
- AGC MIN GAIN. This can be used to limit the total amount of attenuation the AGC can apply to the signal. For example, setting the AGC MIN GAIN to -10 dB will keep the AGC from attenuating the signal too much if someone taps on the microphone.
- AGC RATE. This limits the rate of change of the AGC from between 1 to 5 dB/sec.
- AEC ENABLE. This will enable or disable the acoustic echo canceller (AEC) (AEC is enabled in Figure 9). If enabled the user can select the reference signal to use either REF 1, REF 2, or the BUS REFERENCE.
- SUPPRESION. The user can also control the amount of suppression that is applied by the echo canceller during a double-talk situation. Suppression ranges from NONE (no suppression) to YIKES! mode (half-duplex).
- NC ENABLE. This will enable/disable noise cancellation (NC). If enabled, the user can select the amount of noise cancellation using NC LEVEL. NC LEVEL ranges from 0 to 15 dB of cancellation.

The controls for the line level Inputs A-D are simpler than the mic/line inputs. The user can select a Gain (0dB is the default) and enable/disable Mute.

The SIGNAL GENERATOR input allows the user to create a noise source (either pink or white noise) for use with noise masking applications or calibration of the Vortex.

INPUT FILTERS

Each of the inputs can have up to 5 filters of equalization. These filters include Parametric, Low Pass, High Pass, Low Shelf, and High Shelf. To use the filters, select the type of filter and adjust the controls for the filter. You can adjust the controls in a variety of ways: by typing in values in the text boxes, using the cursor up/down, using Page Up/Page Down, or by clicking and holding the knob and moving the mouse up to increase the value or down to decrease the value. The frequency response of the plots may be viewed by clicking on the GRAPH button.

The ENABLE button per filter enables/disables that particular filter on the Input. The ENABLE FILTERS button enables/disables all filters on the particular Input Channel. This button toggles with the Filter Bypass buttons per Input. All filters for a particular input can be bypassed by clicking on the BYPASS button for that channel.

Once the settings are configured for Input Channel 1, the user may copy those settings to all other channels using the COPY CHANNEL 1 FILTERS TO ALL CHANNELS button.
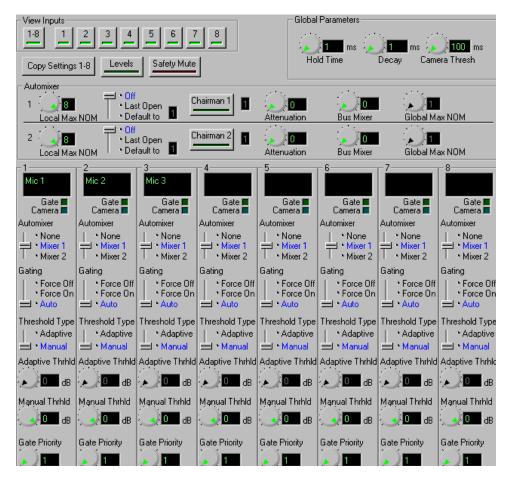
AUTOMIXER

Figure 10. Automixer controls on the Automixer Page.

Each Vortex has two automixers that can be controlled: Automixer 1 and Automixer 2. The controls for the two automixers are shown in Figure 10. For most applications, the user will choose a single automixer. However if the Vortex is split to operate in two independent rooms, the second automixer should be used. The HOLD TIME, DECAY TIME, and CAMERA THRESHOLD TIME is specified globally for each of the automixers.

The CAMERA THRESHOLD TIME is the amount of time a microphone must be gated on before a Camera Gating Indicator is sent to a control system, possibly for camera positioning. Please note that the automixers do not sum the gated inputs together, the summing is performed in the matrix - the automixer makes gating and level decisions and sends that information to the matrix.

The LOCAL MAX NOM can be set to limit the maximum number of open microphones that can be open at a given time on the local Vortex. In single Vortex applications, this is the only control required to limit the number of open microphones. When multiple Vortexes are linked together, the GLOBAL MAX NOM can be used to limit the maximim number of open microphones that can be opened across all linked Vortexes. Unless you want to specifically limit the number of microphones in a particular Vortex when using GLOBAL MAX NOM then you should leave the LOCAL

MAX NOM set to 8. To link Vortexes together, use the BUS MIXER number. Put all the Vortexes you would like to operate as one large mixer together on the same BUS MIXER number with the exception of BUS MIXER 0. If the BUS MIXER is set to 0, the Automixer will work independently from other connected Vortexes.

Each of the eight signal channels going into the automixer can be configured to be part of a particular automixer (Mixer 1 or Mixer 2). If set to NONE, it is not part of an automixer and does not affect gating decisions. The gating for each channel can be set to to FORCE ON, FORCE OFF, or AUTO.

The THRESHOLD TYPE can either be ADAPTIVE or MANUAL. The default is ADAPTIVE THRESHOLD. The ADPATIVE THRESHOLD can be set when the THRESHOLD TYPE is set to Adaptive. This represents how much louder the signal needs to be over the noise floor before the microphone should be gated on. MANUAL THRESHOLD allows you to set an absolute threshold that the signal needs to be greater than in order to gate on.

GATE PRIORITY can be configured for each microphone. Priority 1 is the highest priority and Priority 4 is the lowest priority. A higher priority input takes precedence over a lower priority input if the maximum number of open microphones (Max NOM) is set to be less than the number of microphones assigned to that automixer.

EF Bus

The EF BUS page allows the user to configure how to combine the bus signals from the other linked Vortexes and control which echo canceller reference is sent to other devices as the Bus Reference. Since there can be up to 8 Vortexes linked together and each device can put 4 different signals on the bus (W, X, Y, and Z), there are 4 submatrices to allow flexibility in how the signals from other devices get mixed together and get presented to the main matrix. Figure 11 shows the EF BUS submatrix and the fact that there are 4 submatrices and the inputs are WB0, … WB7 for the W bus, XB0, …, XB7 from the X bus, and the same for the Y and Z busses. The cross points can be changed by left clicking on the cell and adjusting the gain. Cross points can be muted by right-clicking on the cell (an unmuted crosspoint is indicated by a bolded black value; muted is indicated by a gray value). Any of the rows of the matrices can be configured as a mix-minus which allows the user to work with a simple mix-minus sum of all the other devices. If more complicated mixing from other devices is required, any of the matrix rows can have arbitrary cross points gains.

Exporting the Echo Canceller Reference on the EF Bus

You can set which echo canceller reference is assigned as the Bus Reference to be used by all other linked Vortexes in the EXPORTED SIGNALS section on the page. The
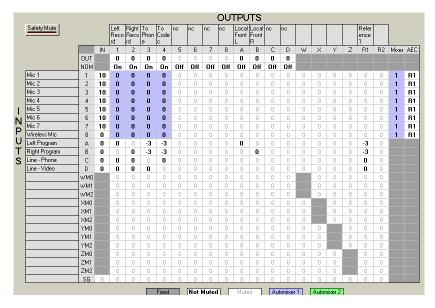
choices are REFERENCE 1, REFERENCE 2, or NONE. Only one Vortex can put an AEC Reference onto the Bus. The other Vortexes can use this reference.

Figure 11. The EF BUS sub matrix. In this example, WB0 is grayed out because we are working with Device 0. Any of the cross points can have arbitrary gains.

Matrix Mixer

The Matrix Mixer in Figure 12 allows the user to map any input to any output with an arbitrary gain in dB applied from -100 dB to +20 dB. Muted cells are shown in light gray while unmuted cells are shown in bold. To set the gain of a single cross point, "left" click on the cell. To set the gain of a collection of cross points click and drag to select a rectangular area. A slider control with a text box will appear to allow you to change the gain, select mute/unmute, or, on Inputs 1-8, choose the gated version of the Input. If you are using signals for reinforcement and specifically want the gated signals at an attenuated level, then set the gated crosspoint to the desired level such as -15 dB. In general, the gain of gated signals should be set to 0 dB since the matrix will sum the automixed signals and use the appropriate weightings of the signals based on the information from the automixer.

To change the gain of an entire row or column you may simply click on the column or row header (any of the labels 1-D on the columns or the rows) to see a collection of sliders as shown in Figure 13.

Figure 12. The full cross point matrix for a system using a phone add, a codec, and stereo program audio. Only the bold crosspoints are unmuted.

Figure 13. Cross point slider view of how Input A is used in all the output channels.

The outputs R1 and R2 correspond to the echo canceller references REF 1 and REF 2. While these outputs are not physical outputs on the product, they allow you to build the echo canceller reference without using physical outputs from the device. In the example in Figure 12, we used stereo program audio and consequently had a local left output (Output C) and a local right output (Output D) in the room. The echo canceller reference R1 included both the codec audio (Input A), the phone add audio (Input B)

and a mono mix of the left and right program audio. The program audio is attenuated by 3 dB before adding it into the R1 output.
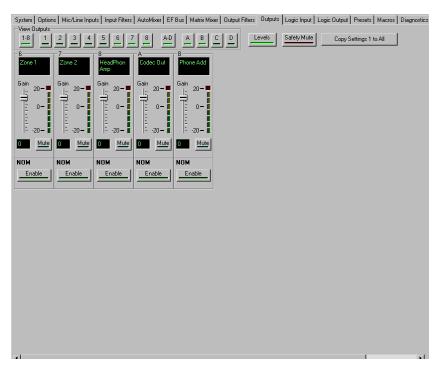
OUTPUT FILTERS

Each of the outputs can have up to 5 filters of equalization. These filters include Parametric, Low Pass, High Pass, Low Shelf, and High Shelf. To use the filters, select the type of filter and adjust the controls for the filter. You can adjust the controls in a variety of ways: by typing in values in the text boxes, using the cursor up/down, using Page Up/Page Down, or by clicking and holding the knob and moving the mouse up to increase the value or down to decrease the value. The frequency response of the plots may be viewed by clicking on the GRAPH button.

The ENABLE button per filter enables/disables that particular filter on the Output. The ENABLE FILTERS button enables/disables all filters on the particular Output Channel. This button toggles with the Filter Bypass buttons per Output. All filters for a particular output can be bypassed by clicking the BYPASS button.

Once the settings are configured for Output Channel 1, the user may copy those settings to all other channels using the COPY CHANNEL 1 FILTERS TO ALL CHANNELS button.

OUTPUTS

Figure 14. Output control for each of the 12 output channels is available on the Outputs Tab. Channels can be hidden from view from the VIEW OUTPUTS control.

The OUTPUTS page allows the user to adjust the output level, select NOM attenuation, and mute outputs. A typical output control is shown in Figure 14. NOM attenuation

(labelled NOM) enabled will reduce the gain of the output signal by 3dB for each doubling of the number of open microphones. NOM attenuation is computed separately for each output, depending on the inputs that are used to build each output. The output levels will be displayed in real-time if the LEVELS function is enabled (click the LEVELS button to enable the levels).

LOGIC INPUT

The LOGIC INPUTS page allows the user to assign individual logic input pins to trigger specific functions, macros, or complete presets. The types of functions that can be executed include any function that can be controlled with an RS232 command such as changing or ramping gains, muting, enable/disable the AEC, set AEC Mode, choose AEC Reference, enable/disable AGC, set AGC Max, set AGC Rate, enable/disable Noise Cancellation, set Noise Cancellation Level, set Mic or Line Level, or turn Phantom Power On or Off. Within Conference Composer, the Logic pins also have an LED associated with them to indicate the status of the contact closure.

A logic pin can have one of the following states: unassigned, assigned to a particular function, macro, or preset, or assigned to one of four groups. To assign a function to a pin, single click and hold on the pin of the connector and select a colored assignment of the pin from the colored boxes that appear. Figure 15 shows the selection process – match the colors with the legend to create an assignment entry for either the single pin or the logic group.

Figure 15. Selecting a type of assignment for a logic pin

Once a pin has been assigned, there are three states associated with the pin: activated, deactivated, and held. To assign a function to one of these three states, right click in the cell, and then pick the function off the list. Alternatively you can type the associated RS232 command in directly. Clicking the SHOW ACTUAL COMMAND button translates the command to the actual RS232 command.

You can also change the polarity of the pin by right clicking on the pin number. This will cause an underline to appear under the pin number. When the polarity is changed, what normally happened when the command was activated (i.e., contact was

closed) will happen when the contact is open. The LED status will also update to reflect polarity status.

Figure 16 shows an assignment of Pin 1 to mute Input 1 when active (i.e., the contact closed) and to unmute when inactive (contact open)..

Figure 16. Logic pin 1 is assigned to mute input 1 when activated and unmute when deactivated.

LOGIC OUTPUT

The LOGIC OUTPUT page allows the user to assign a status function to one of the 20 logic status outputs. The status functions could include AEC On or Off, AGC On or Off, NOM Attenuation, Camera Gating, Gating, Mic or Line Level, Muting, Noise Cancellation, and Phantom Power On or Off. To assign a status function to the status pin, click on the pin. This will enable the ACTIVATED and DEACTIVATED control windows. Right click in the ACTIVATED or DEACTIVATED field to pick a status off the menu list, or type the command in directly. As with the Logic Input pins, the SHOW ACTUAL COMMAND button will show the command syntax.

To create status output that is a logical combination of particular inputs or outputs, use the logical syntax (+, 0, or 1). For instance, to create a status output that will be set when Input Channels 1 AND 3 are muted, the syntax is `'MUTE*1.1.....'`. To create a muting status output that will be set when Input Channels 1 OR 3 are muted, the syntax is `'MUTE*+.+.....'`. Notice that the `MUTE*` status command can take up to 12 arguments, one for each input. The gating status command `GATE*` takes 8 arguments since only Inputs 1-8 can be gated.

The polarity of the outputs can also be changed by right-clicking on the pin number.

PRESETS

The Vortex supports 16 factory presets (meaning they can't be overwritten by the user) and 32 user presets. These presets store **all** information about the settings for the device: input gains, matrix crosspoints, automixer settings, etc. Everything. Changes to the device's settings are not automatically saved in the preset -- you must save your changes to the preset by clicking on the SAVE button. Each preset can have a 16 character label. The user can SAVE the current settings as a preset at any time or RESTORE a different preset at any time. Restoring a preset will send all the status messages to the RS-232 interface so an attached control panel will remain synchronized with the device. The user may also configure which preset is used when the device powers up using the POWER ON PRESET parameter at the top right of the page. The DELETE button can be used to erase a preset.

MACROS

You can create up to 256 macros. Each macro can have up to 256 single commands that are executed sequentially when the macro is executed. The user selects a macro to create and then sequentially puts the commands into the macro.

New commands may be inserted into the macro after the existing command by right clicking on an existing command and selecting either a command off the list or the INSERT COMMAND option which will let you type a command in directly. You can also add new commands to the macro by typing the RS-232 command strings directly into the text box.

To change the order of the command in the macro, choose either MOVE COMMAND UP or MOVE COMMAND DOWN. Use DELETE COMMAND to delete a command and DELETE ALL COMMANDS to delete all commands from the current macro. CLEAR MACRO will erase all commands from a macro and CLEAR ALL MACROS will delete all commands and macros.

DIAGNOSTICS

The DIAGNOSTICS page allows you to adjust Gain levels and enable/disable Mute on Inputs 1-8, A-D and Outputs 1-8, A-D. On Input 1-8, you can also check the status of gating, AEC state information (shown by the LEDs marked XMIT and RECV), AGC, and Room Gain as well as enable/disable AGC and Noise Cancellation. Levels of the echo canceller References, R1 and R2 are also displayed on this page.

To turn on the meter information, select the LEVELS button.

PROJECT FILES AND CREATING REPORTS

FILE SAVING

When working off-line, you may find it useful to save Project files for archival purposes or to allow you to send the configuration to another person. To save a Project file, either left click on the Project and then right click to select SAVE or from the FILE menu, select SAVE PROJECT. Once you enter a file name, you can save the selected Project to disk. A Project file includes all the devices that make up the project. For instance if you have a Project that includes multiple Vortexes and an EF200, then the Project file that is saved to disk will include settings for all the devices. To save the file to a different name, select SAVE AS from the FILE menu.

Presets for the devices in the Project are also stored to the file when working off-line.

FILE RESTORING

You can easily restore the settings from a file to actual EF devices. To restore a Project, first open the Project from the FILE menu. Then when connected to the EF Devices, left click on the Project and select the ONLINE button. This will present a window with the following options: DOWNLOAD SETTINGS FROM THE DEVICE, UPLOAD SETTINGS TO DEVICE, or CANCEL. Select UPLOAD SETTINGS TO DEVICE to upload the Project settings to the device.

You should set the Device IDs on the actual devices to match those in the project before uploading the Project.

Once uploading has started, the display will present a status bar of the progress of uploading. All Presets in the Project will be uploaded along with Project settings.

CREATING REPORTS

Conference Composer can automatically generate reports of a Project, Device Chain, or Device which show all the settings configured for the device. A Project report will consist of the device chains and any devices that are part of the device chain. A device chain report will only include the devices included in the device chain. A device report only includes the settings for that particular device.

Once a report has been selected, the system prompts for whether all the presets should be included in the reports. Select Yes if you would like all the presets to be included in the reports. Select No if you do not want the preset information to be included in the report. In this case you will only report the current operating settings of the device.

Reports may be customized by allowing you to put in a company name and address information. You can enter this information by selecting the Project and type Report tab.

To print the report, you have the option to print directly to a printer and/or to create a Portable Disk Format (PDF) file.

THE CONSOLE WINDOW

The Console Window provides communication information between your PC and the EF Device. There are two tabs in this window: the Console Tab and the Properties Tab. The Console Tab is a terminal program that allows you to send commands to the EF Device and monitor the acknowledgements. The PROPERTIES Tab allows you to change the settings on flow control and also includes the capability to update firmware.

To open a Console Window, right click on the COM port in Conference Composer's Explorer menu, and choose CONSOLE from the pull down menu that appears.
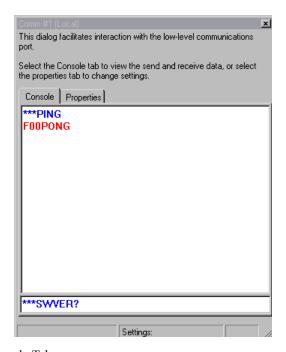
CONSOLE TAB

Figure 17. Console Tab.

WATCHING
COMMANDS

The larger window in the Console Tab displays communications between your PC and the EF Device. Strings that are shown in blue text indicate a string sent by the PC. Strings shown in red text are acknowledgements sent by the EF Device.

This tool is a good way to monitor communication between control systems and the EF Devices.

SENDING COMMANDS

The small rectangular box at the bottom of the Tab is for typing in commands to send to the EF Device.
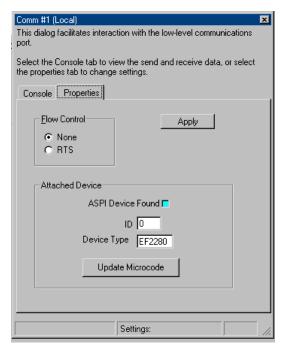
PROPERTIES TAB

Figure 18. Properties Tab in the Console Window.

The Properties Tab provides the capability to change flow control and also update the firmware of your EF Device.

UPDATING FIRMWARE

The capability to update firmware is included in Conference Composer version 1.62 and higher. Check our website at www.aspi.com for the latest versions of the software and information on our products.

The latest EchoFree firmware versions are listed below in Table 1.

ECHOFREE DEVICE	LATEST FIRMWARE VERSION
EF2280 Vortex	version 1.18
EF1210	version 1.05
EF200	version 1.13

Table 1: Latest firmware versions of EchoFree devices as of 11/15/01.

UPDATE YOUR EF DEVICE

In Conference Composer software,

1. Connect the RS-232 cable from your computer to the EchoFree device that you are updating. Ensure that your serial port cable is wired with RTS and CTS for hardware flow control. **If you do not have RTS and CTS, this process will not work and error messages will be displayed.** You can keep the device con-

nected to other devices through the ASPI Bus or EF Bus.

2. In the PROJECT menu, select AUTOSCAN to synchronize the device settings with Conference Composer.

3. Open a CONSOLE window by right-clicking on the Serial Port connected to your EchoFree device in the Explorer type menu on the left side of the Conference Composer window. Choose CONSOLE from the menu that appears.

4. In the CONSOLE window, click on the PROPERTIES tab. Make sure that the ASPI DEVICE FOUND LED is blue, which indicates that your computer is communicating with the EF device. Click on the UPDATE MICROCODE button.

5. In the dialog box that comes up, choose the EFB file for your appropriate device. These EFB files are found in the directory where Conference Composer is installed. Follow the instructions that come up in the dialog boxes.

NOTE   When prompted by Conference Composer to perform a STANDARD UPDATE or THOROUGH UPDATE, we recommend choosing THOROUGH. This option will reinitialize the non-volatile memory both before and after the update. If you choose this option, be sure to Autoscan before you begin the update. Conference Composer will automatically load your settings (including presets and macros) back to your Vortex after updating the firmware.

MODEM USE WITH THE VORTEX

CONFERENCE
COMPOSER

You will need Conference Composer version 1.62 or later. You can find the latest version of the software on our website at www.aspi.com, on the Vortex page.

ON SITE WITH THE
VORTEX

At the local site with the Vortex, use Conference Composer to enable the modem to auto answer:
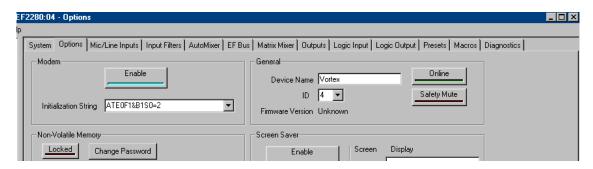

Figure 19. Modem settings on Conference Composer OPTIONS page.

1. On the OPTIONS page, choose the default initialization string from the INITIAL-IZATION STRING pull-down menu. If a default is not listed, enter the following string:

   ```
   ATE0F1&B1S0=2
   ```

2. Enable the initialization string by clicking on the ENABLE button.
3. Disconnect the RS-232 cable from the Vortex and connect it to your modem. You may need to use a null modem for your modem. Connect your modem to the Vortex.
4. Cycle power on the Vortex. As it powers up, it will send the initialization string to the modem. Make sure the modem is On before cycling power on the Vortex.

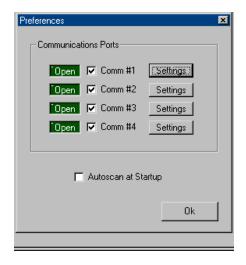If you don't have Conference Composer on site,

1. Using a terminal program, send the following strings to the Vortex:
   ```
   F**MINISTRATF1E0&B1S0=2
   F**MINI1
   ```

   This will enter the initialization string and enable it.
2. Disconnect the RS-232 cable from the Vortex and connect it to your modem. You may need to use a null modem for your modem. Connect your modem to the Vortex.
3. Cycle power on the Vortex. As it powers up, it will send the initialization string to the modem. Make sure the modem is On before cycling power.

FROM THE REMOTE
SITE

At the remote site, open Conference Composer and from the FILE menu choose PREF-ERENCES. The dialog box that comes up should look similar to the one below in Figure 20.

Figure 20. FILE -> PREFERENCES

Find the Comm Port that your modem is connected to and make sure the box beside it is checked. Click on the corresponding SETTINGS button. In the dialog box that comes up, go to the MODEM tab (see Figure 21 below).
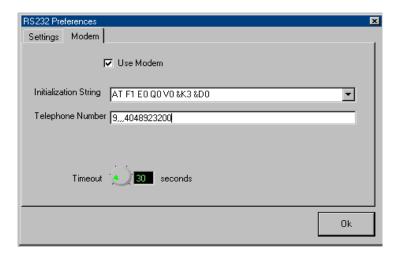

Figure 21. Modem tab

If the modems hang up before you connect, increase the TIMEOUT time.

Choose the default string in the INITIALIZATION STRING pull down menu. It should be the following string:

```
AT F1 E0 Q0 V0 &K3 &D0
```

Click on the box beside USE MODEM to enable it. Then enter in the phone number.

After both sides are setup, you should be able to AUTOSCAN from the remote end. Autoscanning will have your modem dial the remote site and connect to the remote modem, which is connected to the Vortex. You can then control the Vortex just like you were connected to it locally.

TROUBLESHOOTING THE VORTEX MODEM CONNECTION

VERIFY THAT THE VORTEX IS SENDING THE CORRECT INIT STRING

On the Vortex side, connect the Vortex RS-232 port to the PC (you may need to remove the null modem adapter). Next, open the CONSOLE window in Conference Composer (right-click on the COMM port in the Explorer menu and choose CONSOLE from the pull down menu) or some other terminal program. Now, send a `F**PING` command and make sure the Vortex responds with a `PONG`. This verifies the cable connection between the PC and the Vortex. Now, cycle the power on the Vortex while leaving the terminal window open. When the Vortex reboots, you should see it send the modem initialization string to the terminal window. If you are using the default modem init string, you should see `ATE0F1&B1S0=2` echoed in the terminal window. If you don't see the string, you will need to double check that the string is set correctly and that it is enabled.

MAKE SURE THE INITIALIZATION STRING IS SENT TO THE MODEM

If you are sure that the correct modem init string is being sent out when the Vortex reboots, then connect the RS-232 cable between the Vortex and the modem (you may need to add a null modem adapter). Make sure the modem is powered on, then cycle the power to the Vortex. This ensures that the Vortex sends the init string to the modem.

DOUBLE CHECK THE CABLE BETWEEN THE MODEM AND THE VORTEX

Depending on your serial cable and your modem, you may or may not need a null modem adapter. The Vortex RS-232 port is configured as a DCE. Most modems are also configured as a DCE, so you will most likely need a null modem (The serial ports of most PCs are configured as DTE, which means you don't need a null modem to communicate between the Vortex and a PC).